



March 17, 2017

Ex Parte

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Notice of Oral *Ex Parte* Presentation

Preservation of One Vacant Channel in the UHF Television Band for Use by White Space Devices and Wireless Microphones, MB Docket No. 15-146
Amendment of Parts 15, 73 and 74 of the Commission's Rules to Provide for the Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, ET Docket No. 13-49
Fixed Wireless Communications Coalition Request for Modified Coordination Procedures in Bands Shared Between the Fixed Service and the Fixed Satellite Service, RM No. 11778

Dear Ms. Dortch:

On March 15, 2017 Michael Calabrese of New America's Open Technology Institute (OTI) met with Julius Knapp, chief of the Office of Engineering and Technology (OET), along with OET staff members Geraldine Matise, Mark Settle and Rashmi Doshi, concerning the above-referenced proceedings.

Concerning **the Vacant Channel NPRM**, I inquired about the timeline for a final decision on the long-delayed Vacant Channel Order. I also asked whether there has been any change in OET's previously stated view that continuing to reserve one vacant channel for shared use by unlicensed microphones and other devices is very unlikely to leave any active LPTV station without a channel assignment and the ability to continue serving its viewers. I noted that the outcome of the Incentive Auction, closing at the 84 megahertz threshold, served to reinforce the results of Google's simulation study of likely Incentive Auction outcomes demonstrating that the vacant-channel proposal will have only a minimal impact on LPTV and translator stations.¹ The study represents the only substantial data in the record that predicts the impact of the Commission pending proposal. Its findings seem even more likely to be accurate if the Incentive Auction closes at the current 84 MHz clearing target, or potentially even lower.

¹ Letter from Austin Schlick, Director, Communications Law, to Marlene Dortch, Secretary, FCC, MB Docket No. 15-146, GN Docket No. 12-268 (filed March 25, 2016).

I reiterated the strong support of the Public Interest Spectrum Coalition (PISC) for a quick and favorable resolution of the Commission's still-pending proposal to preserve at least one vacant television channel in every market nationwide for unlicensed use. I asserted that there is no justification for further delay, since the auction is complete and the policy decision should be certainty around national markets to enable TVWS innovation *even if* a secondary broadcast licensee in one or two markets is left without a clear channel.

An early Commission decision is needed to relieve the longstanding uncertainty about whether a minimum of at least three channels of unlicensed spectrum in the ongoing TV band will continue to be available for public use and private investment after the incentive auction. Leading chipmakers and other tech industry stakeholders have steadfastly maintained that the post-auction band plan and repacking policies must ensure at least three channels of 6 megahertz of unlicensed access in every market nationwide, especially in the most populated metro markets, to enable many emerging unlicensed use cases and the economic. Otherwise, the social benefits that derive from low-band unlicensed spectrum access for broadband could be lost despite the already enormous investments of time and capital.

Concerning the Commission's ongoing proceeding to make next generation Wi-Fi possible by authorizing shared use of **the proposed U-NII-4 band at 5.9 GHz**, I inquired about the status and timeline of the ongoing Phase One testing process.

Concerning **the Fixed Wireless Communications Coalition (FWCC) petition**, I noted that OTI and Public Knowledge filed comments supporting the FWCC's proposal to open a rulemaking but does not endorse the specific rule changes proposed by FWCC, at least not as they would apply to the 3700 – 4200 MHz and 5925 – 6425 MHz bands. Both the downlink and uplink portions of the C-Band are grossly underutilized and could – given current dynamic spectrum sharing techniques – support extremely valuable, low-power fixed wireless and unlicensed use. FSS operators have no economic incentive to share spectrum, to use it efficiently, or even to inform the Commission if their licensed sites are no longer in use.

I asked about technical hurdles and noted that OTI recommends the Commission adopt a NPRM that proposes to authorize shared use of both C-Band segments, including a modernization of the Part 101 rules to facilitate point-to-multipoint fixed wireless use of 3.7-4.2 GHz and unlicensed access under Part 15 in the uplink C-Band (5925 – 6425 MHz) that is immediately adjacent to the U-NII-3 and proposed U-NII-4 unlicensed bands. The 6 GHz band may be the best opportunity to meet the exploding demand for high-capacity Wi-Fi using the mid-band spectrum most useful for Wi-Fi offload and other innovation. There is also an opportunity at present for global harmonization, since the European Commission's Electronic Communications Committee (ECC) recently initiated a study aimed at opening this same spectrum for unlicensed use.

With respect to expanding shared access to the 3700 - 4200 GHz band for fixed wireless services, the time is ripe for the Commission to enable intensive terrestrial use of vacant mid-band spectrum to promote the nation's affordable broadband goals. The 3700 – 4200 MHz band could potentially substitute for trenching wireline fiber to many homes and businesses over the final 300 to 1,000 feet or further, re-

using the spectrum at low-power while greatly reducing the cost of gigabit broadband connectivity, particularly in small towns, exurbs and rural areas.

Respectfully submitted,

/s/ Michael Calabrese
Director, Wireless Future Project
Open Technology Institute
740 15th Street, NW - 9th Floor
Washington, DC 20005

cc: Julius Knapp
Geraldine Matise
Mark Settle
Rashmi Doshi